



NORTHFIRE 42 42-DVT40N

DIRECT VENT
GAS FIREPLACE

FOR USE WITH NATURAL GAS OR PROPANE*

USERS' INSTALLATION OPERATION & MAINTENANCE MANUAL

WARNING: If the information in this manual is not followed exactly, fire or explosion may result causing property damage, personal injury or loss of life.

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

WHAT TO DO IF YOU SMELL GAS:

- * Do not try to light any appliance.
- * Do not touch any electrical switch; do not use any phone in your building.
- * Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- * If you cannot reach your gas supplier, call the fire department.

Installation and service must be performed by a qualified installer, service agency or the gas supplier.



This appliance may be installed in an aftermarket permanently located, manufactured home (USA only) or mobile home, where not prohibited by local codes.

This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases, unless a certified kit is used.

*Conversion kit required for Propane use

Installer: Please leave this manual with the appliance owner for future reference



7116 Beatty Dr
Mission, BC V2V 6B4
Canada



200-1912
JUNE 2010

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CAUTION

Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies.

Children and adults should be alerted to the hazards of high surface temperature and stay away to avoid burns or clothing ignition.

Young children should be carefully supervised when they are in the same room as the appliance.

Clothing or other flammable material should not be placed on or near the appliance.

Do not operate with cracked or broken glass. Be careful not to strike or slam the glass.

Any safety screen or guard removed for servicing an appliance must be replaced prior to operating.

Installation and Repair should be done by a qualified service person. The appliance should be inspected before use and at least annually by a professional service person. More frequent cleaning may be required due to excessive lint from carpeting, bedding materials, etc. It is imperative that the control compartments, burners and circulating air passageways of the appliance are kept clean.

Patents Pending

INTRODUCTION

Congratulations on choosing an Archgard fireplace!

The Northfire 42 is one of the most advanced direct vent fireplace heaters available. It is solidly designed using the latest technology and manufactured to the highest quality. It is our aim to provide you with an appliance for many trouble-free years of reliable service.

Some of the many features are:

- | | |
|--------------------------------------|---|
| Heater Classification | The Northfire 42 is classified as a heating appliance. Therefore, it has additional safety devices built-in and it can be operated continuously for zone heating. |
| High Efficiency | The Northfire 42 has one of the highest efficiencies of any gas fireplace, which means that it is less expensive to operate. |
| Adjustable Flame | The flame aesthetics and heat output can be adjusted to suit the owner's liking and heating needs. |
| Solid Construction | The Northfire 42 is constructed mainly of 14 and 18 gauge galvanized and aluminized steel for long life and durability. |
| Optional Thermostatic Control | The gas control system is "thermostat-ready" for any millivolt wall thermostat or wireless remote control. |

Please read the manual carefully prior to installation and operation of the appliance. Proper installation, operation and maintenance of the appliance will provide you with many years of enjoyment.

We recommend you record the following information:

Fireplace Model Number: 42-DVT40N Serial Number: _____

Date of Installation: _____

Type of Gas Used by the Fireplace: ☐ Natural Gas ☐ Propane

Dealer's Name & Address: _____

Dealer's Phone Number: _____

*Requirements for the state of Massachusetts***5.08: Modifications to NFPA-54, Chapter 10**

(2) Revise 10.8.3 by adding the following additional requirements:

(a) For all side wall horizontally vented gas fueled equipment installed in every dwelling, building or structure used in whole or in part for residential purposes, including those owned or operated by the Commonwealth and where the side wall exhaust vent termination is less than seven (7) feet above finished grade in the area of the venting, including but not limited to decks and porches, the following requirements shall be satisfied:

1. INSTALLATION OF CARBON MONOXIDE DETECTORS. At the time of installation of the side wall horizontal vented gas fueled equipment, the installing plumber or gasfitter shall observe that a hard wired carbon monoxide detector with an alarm and battery back-up is installed on the floor level where the gas equipment is to be installed. In addition, the installing plumber or gasfitter shall observe that a battery operated or hard wired carbon monoxide detector with an alarm is installed on each additional level of the dwelling, building or structure served by the side wall horizontal vented gas fueled equipment. It shall be the responsibility of the property owner to secure the services of qualified licensed professionals for the installation of hard wired carbon monoxide detectors

a. In the event that the side wall horizontally vented gas fueled equipment is installed in a crawl space or an attic, the hard wired carbon monoxide detector with alarm and battery back-up may be installed on the next adjacent floor level.

b. In the event that the requirements of this subdivision can not be met at the time of completion of installation, the owner shall have a period of thirty (30) days to comply with the above requirements; provided, however, that during said thirty (30) day period, a battery operated carbon monoxide detector with an alarm shall be installed.

2. APPROVED CARBON MONOXIDE DETECTORS. Each carbon monoxide detector as required in accordance with the above provisions shall comply with NFPA 720 and be ANSI/UL 2034 listed and IAS certified.

3. SIGNAGE. A metal or plastic identification plate shall be permanently mounted to the exterior of the building at a minimum height of eight (8) feet above grade directly in line with the exhaust vent terminal for the horizontally vented gas fueled heating appliance or equipment. The sign shall read, in print size no less than one-half (1/2) inch in size, "**GAS VENT DIRECTLY BELOW. KEEP CLEAR OF ALL OBSTRUCTIONS**".

4. INSPECTION. The state or local gas inspector of the side wall horizontally vented gas fueled equipment shall not approve the installation unless, upon inspection, the inspector observes carbon monoxide detectors and signage installed in accordance with the provisions of 248 CMR 5.08(2)(a)1 through 4.

(b) EXEMPTIONS: The following equipment is exempt from 248 CMR 5.08(2)(a)1 through 4:

1. The equipment listed in Chapter 10 entitled "Equipment Not Required To Be Vented" in the most current edition of NFPA 54 as adopted by the Board; and
2. Product Approved side wall horizontally vented gas fueled equipment installed in a room or structure separate from the dwelling, building or structure used in whole or in part for residential purposes.

(c) MANUFACTURER REQUIREMENTS - GAS EQUIPMENT VENTING SYSTEM PROVIDED. When the manufacturer of Product Approved side wall horizontally vented gas equipment provides a venting system design or venting system components with the equipment, the instructions provided by the manufacturer for installation of the equipment and the venting system shall include:

1. Detailed instructions for the installation of the venting system design or the venting system components; and
2. A complete parts list for the venting system design or venting system.

(d) MANUFACTURER REQUIREMENTS - GAS EQUIPMENT VENTING SYSTEM NOT PROVIDED. When the manufacturer of a Product Approved side wall horizontally vented gas fueled equipment does not provide the parts for venting the flue gases, but identifies "special venting systems", the following requirements shall be satisfied by the manufacturer:

1. The referenced "special venting system" instructions shall be included with the appliance or equipment installation instructions; and
2. The "special venting systems" shall be Product Approved by the Board, and the instructions for that system shall include a parts list and detailed installation instructions.

(e) A copy of all installation instructions for all Product Approved side wall horizontally vented gas fueled equipment, all venting instructions, all parts lists for venting instructions, and/or all venting design instructions shall remain with the appliance or equipment at the completion of the installation.

For the State of Massachusetts, installation and repair must be done by a plumber or gasfitter licensed in the Commonwealth of Massachusetts.

For the State of Massachusetts, flexible connectors shall not exceed 36 inches in length.

The State of Massachusetts requires the installation of a carbon monoxide alarm in accordance with NFPA 720 and a CO alarm with battery back up in the same room where the gas appliance is installed.

For the State of Massachusetts the appliances individual shut – off must be a t-handle type valve.

GENERAL INFORMATION

APPLIANCE CERTIFICATION

This appliance is tested and certified to the following US and Canadian gas appliance standards.

- ANSI Z21.88b-2003 / CSA 2.33b-2003, Vented Gas Fireplace Heaters
- CAN / CGA-2.17-M91, Gas-Fired Appliances for Use at High Altitudes

Please contact Archgard Industries Ltd., if you have any questions regarding the certification of this appliance.

INSTALLATION CODES

This appliance must be installed by a qualified gas appliance installer.

The installation must conform with the local codes or, in the absence of local codes, with the current National Fuel Gas Code, ANSI Z223.1/ NFPA 54, in the US or Installation Code, CAN/CGA-B149, in Canada. Electrical connections and grounding must conform with local code, or current National Electrical code, ANSI/NFPA No. 70-1987, in the US and in Canada, the current Canadian Electrical Code, CSA C22.1.

We recommend that our gas hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) as NFI Gas Specialists

SPECIFICATIONS

	Natural Gas (NG)	Propane (LP)
Manifold Pressure	1.6 - 3.5 in. W.C. (0.4 - 0.9 kPa)	6.3 - 10.0 in. W.C. (1.6 - 2.5kPa)
Minimum Supply Pressure for Purpose of Input Adjustment	4.5 in. w.c. (1.1 kPa)	11.0 in. w.c. (2.7 kPa)
Orifice Size	#31 DMS (3.05 mm dia.)	#50 DMS (1.60 mm dia.)
Nominal Input Rating	27,000 - 40,000 BTU/hr (7.9 - 11.7 kW)	30,000-35,50000 BTU/hr (9.1 - 10.7 kW)
Altitude	0 - 4500 ft (0 - 1372 m)	0 - 4500 ft (0 - 1372 m)
Primary Air Opening	¼ in. (9.6 mm)	¼ in. (9.6 mm)

HIGH ALTITUDE INSTALLATION

When installing this appliance beyond 4500 ft. (1372 m) above sea level. The appliance must be properly de-rated and installed according to local codes, in the absence of local codes, with the current National Fuel Gas Code, ANSI Z223.1/ NFPA 54, in the US or Installation Code, CAN/CGA-B149, in Canada.

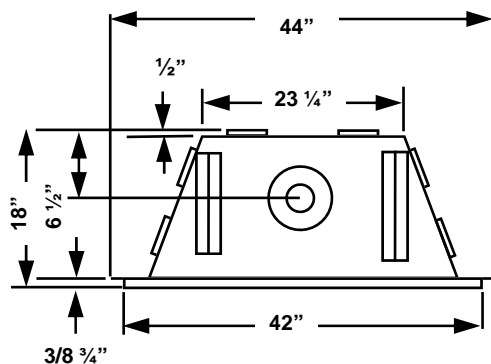
APPLIANCE DESCRIPTION**FLAT FRONT**Top Louvers
(removable)

Ceramic glass front

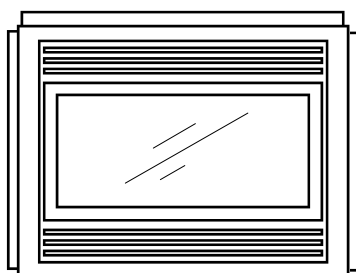
Hinged bottom louvers
for control access

DIMENSIONS AND CLEARANCES

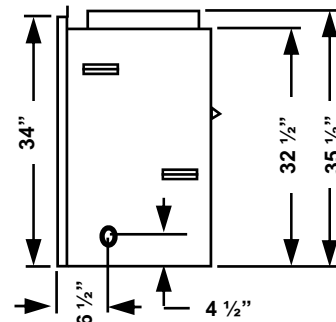
APPLIANCE DIMENSIONS



TOP VIEW



FRONT VIEW



SIDE VIEW

CLEARANCES TO COMBUSTIBLES

BACK	0" to stand-offs
SIDES	0" to stand-offs
TOP	0" to stand-offs
BOTTOM	0"
ADJACENT SIDE WALL	1" to side of faceplate
MANTLE	see diagram
VENT	1" to outside side and bottom surface, 2" to outside top surface.

MANTLE CLEARANCE

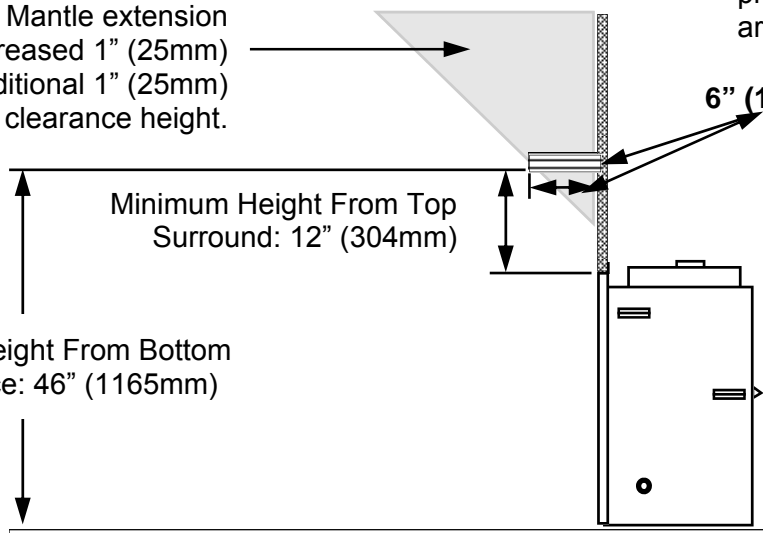
Combustible mantle allowed in shaded area. Mantle extension may be increased 1" (25mm) for each additional 1" (25mm) increase in clearance height.

Minimum Height From Bottom of Appliance: 46" (1165mm)

Minimum Height From Top Surround: 12" (304mm)

6" (152 mm)

NOTE: Low profile wooden crowns and moldings above the unit are not considered as mantles. I.E. 1" or less protrusions on the upper mantle facing are acceptable



INSTALLATION INSTRUCTIONS

PRECAUTIONS

- This appliance must be installed by a qualified gas installer and the installation must conform to the installation codes.
- Provide adequate clearance around air openings of the appliance. Never obstruct front openings.
- Provide adequate clearances for proper operation and servicing of the appliance.
- This appliance must be properly connected to a venting system.
- This gas appliance must not be connected to a chimney serving a separate solid-fuel burning appliance.
- Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.
- Caution: Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation.
- Verify proper operation after servicing.
- Do not use substitute materials.
- Do not abuse glass doors by striking or slamming shut.
- Do not use abrasive cleaners.
- Use only approved fireplace glass cleaner for cleaning your glass.

LOCATING GAS FIREPLACE

This appliance must be installed in any location that is free of plumbing, electrical wiring and heating or air conditioning ducts. Select a location that is accessible for venting. See ALLOWABLE TERMINATION LOCATIONS on page 13.

GAS CONNECTIONS

Have your gas supplier or a qualified gas fitter run a gas supply line into the fireplace. The line must be properly sized and fitted according to the installation codes. Immediately up stream of the supply connection, the fitter shall provide an accessible manual shut-off valve and a 1/8 NPT plugged tapping accessible for connection to a test gauge.

CAUTION: The appliance and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psig (3.5 kPa). The appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psig (3.5 kPa). Failure to do so will damage the appliance's gas valve. Such damage is not covered by the manufacturer's warranty.

INSTALLATION INSTRUCTIONS Cont...**Natural Gas Pressure Settings:**

The inlet supply or line pressure must be a minimum of 4.5" w.c. (1.1 kPa) and a maximum of 8" w.c. (2 kPa). The orifice has a #31 DMS drill size.

<u>ELEVATION</u>	<u>INPUT RATING</u>
0-4500 ft. (0-1372 m)	40,000 BTU/hr (11,700 watts)
4500 ft. (1372 m) +	40,000 BTU/hr (11,700 watts) less 4% per 1000 ft. (300 m)
Please contact your local distributor for the appropriate orifice size.	

Propane Pressure Settings:

The inlet supply or line pressure must be a minimum of 11" w.c. (2.8 kPa) and a maximum of 14" w.c. (3.5 kPa). The orifice has a #50 DMS drill size.

<u>ELEVATION</u>	<u>INPUT RATING</u>
0-4500 ft. (0-1372 m)	36,500 BTU/hr (10,700 watts)
4500 ft. (1372 m) +	36,500 BTU/hr (10,700 watts) less 4% per 1000 ft. (300m)
Please contact your local distributor for the appropriate orifice size.	

NOTE: THE INPUT RATING SHOULD ALWAYS BE CHECKED WHEN FIRST RUNNING THIS APPLIANCE. To do this, reduce the background flow rate, time the meter, light the fireplace and take another reading after 15 mins. of operation. Check with your gas supplier for the gas BTU content at your elevation. Input is the rate of flow multiplied by the heating value of the gas (cubic feet/hour x BTU per cubic feet). Adjust the manifold pressure so that the unit does not operate above the rated input. To do this, loosen the screw on the variable input knob on the valve and reposition that the maximum input is correct. Retighten the screw.

ELECTRICAL CONNECTIONS

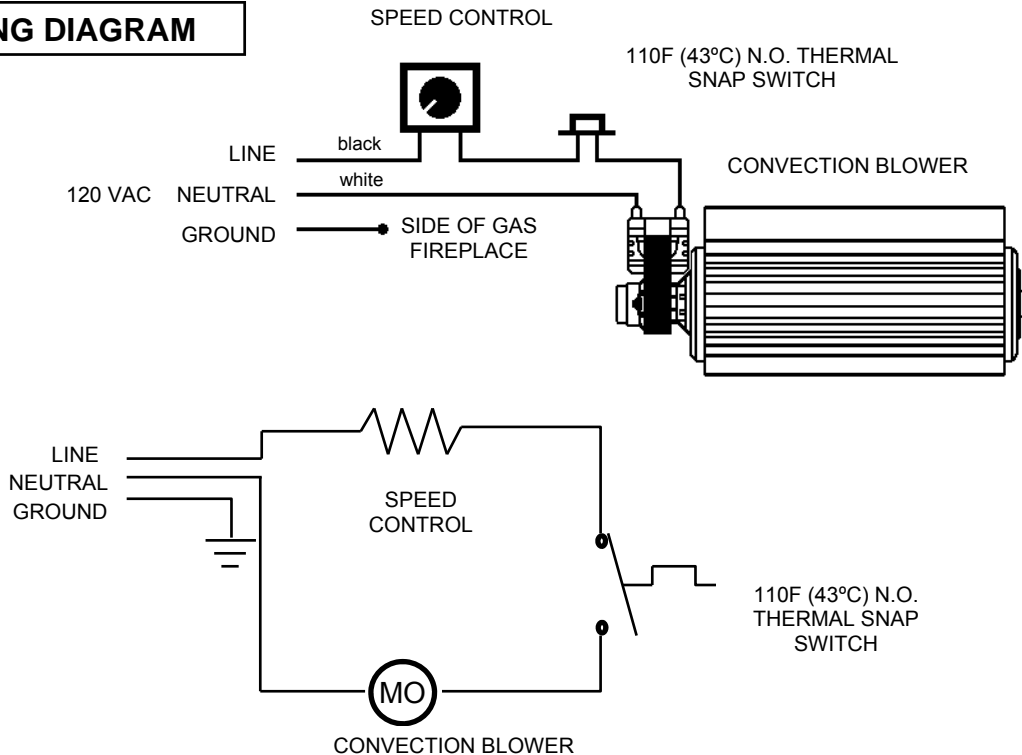
The Northfire 42 comes complete with a Blower installed and wired to an internal junction box.

Have a qualified electrician run a 120VAC supply line to the lower left side of the fireplace before installing the appliance. He should leave 18" (460mm) of the supply line free for ease of connection to the appliance. Connect the electrical supply line to the appliance at the same time the gas line is being connected to the appliance.

Flip open the bottom grill and undo the 2 screws holding the control panel. Run the line into the left side of the appliance through the hole in the rear of the junction box and hold with a standard 7/8" clamp. Connect the 'live' (black) supply conductor to the free black conductor from the speed controller with a marrette type wire connector. Connect the 'neutral' white supply conductor to the free white conductor from the convection fan with a marrette type wire connector. Connect the 'ground' (green or bare) conductor to the ground screw in the junction box. Replace the junction box cover and control panel and fasten with the 2 screws.

INSTALLATION INSTRUCTIONS Cont...

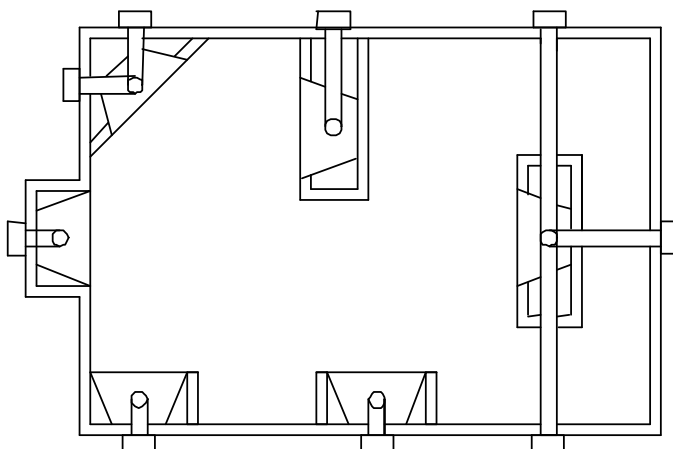
WIRING DIAGRAM



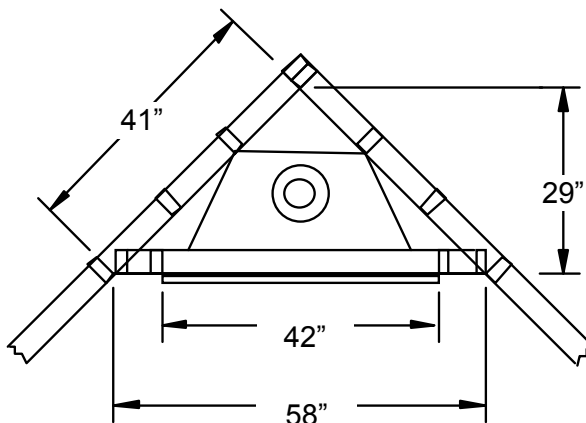
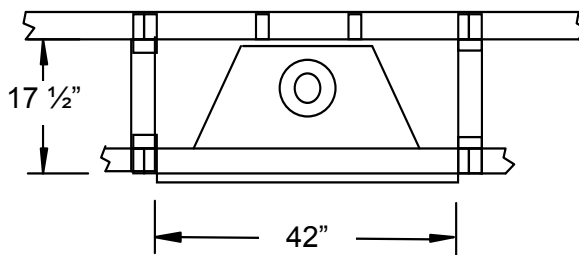
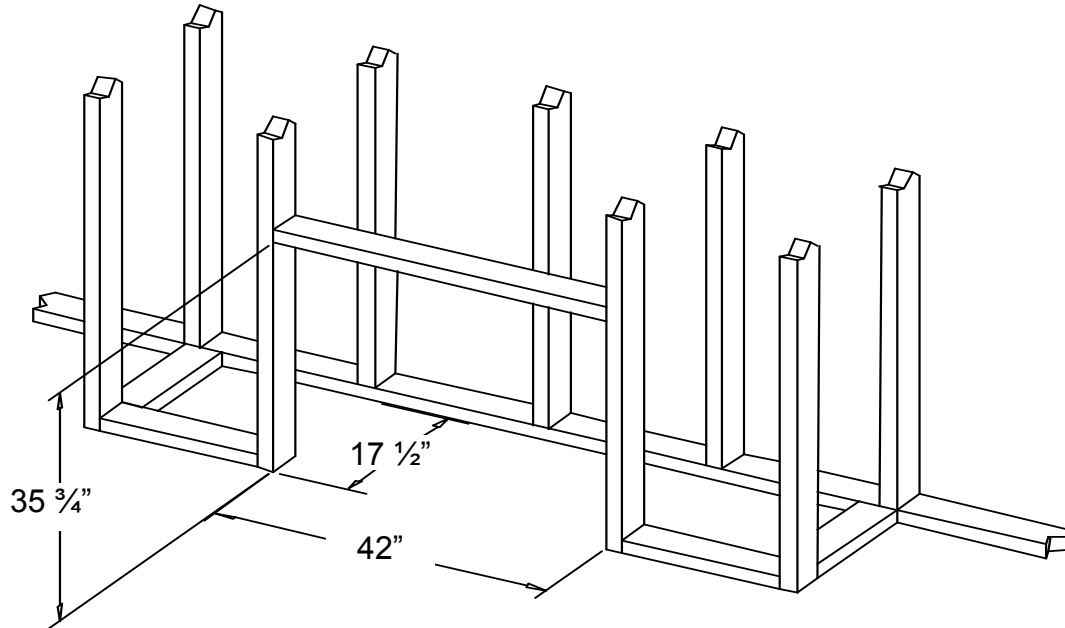
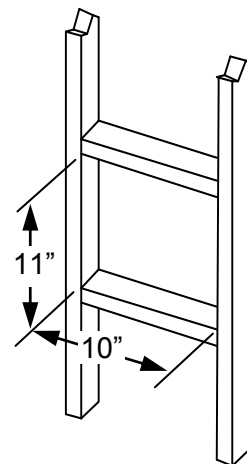
VENT TERMINATION

1. See ALLOWABLE TERMINATION LOCATIONS and establish a suitable vent termination location.
2. In heavy snowfall areas make sure vent termination is located where it cannot be blocked by snow or snow from snow removal equipment.
3. Locate vent termination away from plants, bushes or any other object near the vent termination that will interfere or obstruct the air flow around it.
4. DO NOT recess vent termination into walls, sidings or planters.
5. Vent terminations located below 7ft from grade level or anywhere that it can be a burn hazard to the public, such as patios and balconies, must be protected with an Archgard approved termination cage.

ALLOWABLE FIREPLACE LOCATIONS



See venting chart for maximum and minimum vertical/horizontal venting configurations.

INSTALLATION INSTRUCTIONS Cont...**FRAMING DIMENSIONS****TERMINATION
FRAMING**

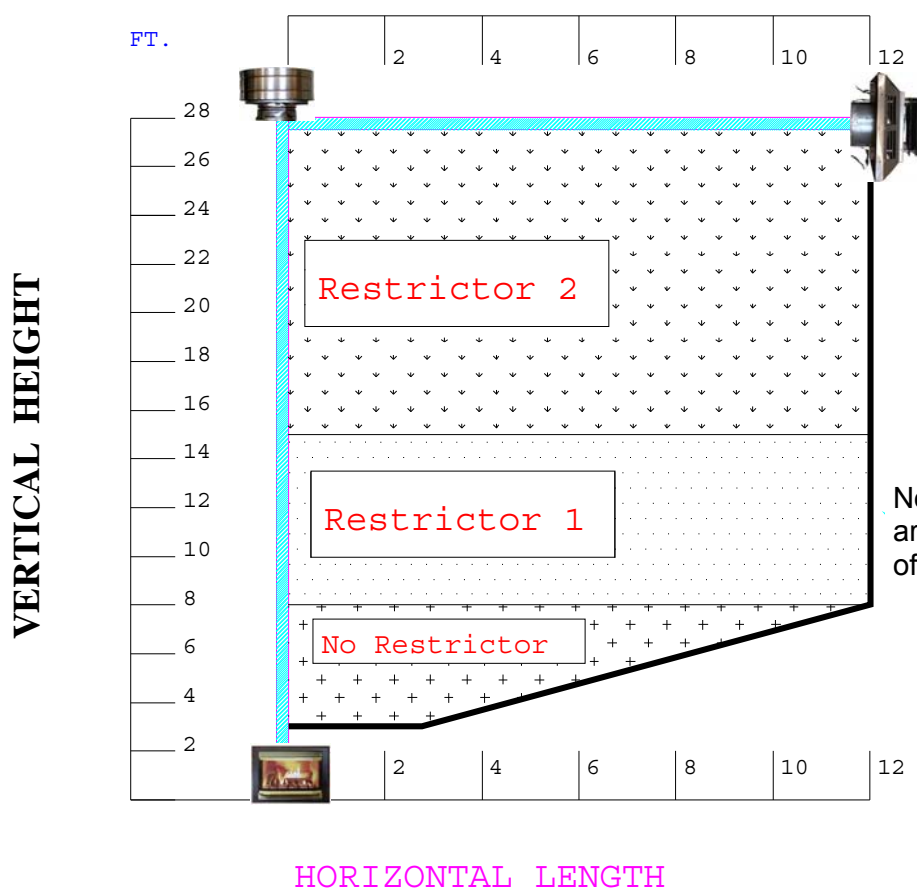
NOTE: Be sure to include 1/4" rise per foot of horizontal length. For rear vented fireplace be sure to include 1" vertical rise minimum per foot of horizontal length beyond 6".

INSTALLATION INSTRUCTIONS Cont...

VENTING

The appliance will not function without being connected to a proper venting system. This appliance may only use direct vent system supplied by Archgard, or Simpson Dura-Vent direct vent systems with Archgard #999-DV-SDA adapter.

VENTING CHART



Note:

Restrictors are to be used in vertical vent installations.

See page 14 for restrictor placement

Note: No Installations are permitted outside of this range.

NOTE: Minimum vertical rise of 18" is required for a horizontal run of 36" or less. Measured from the top of the unit to the center of the elbow.

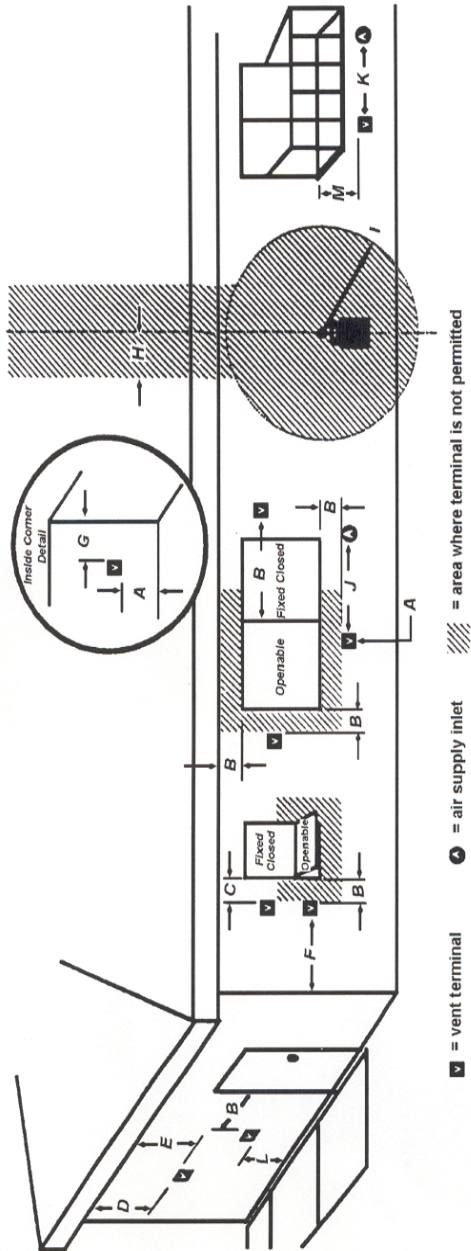
- Chart is for one 90° bend, with 1/4" (7 mm) vertical raise minimum per foot of horizontal length.
- For each additional 90° or two 45°, add one foot of vertical height.
- Maximum three 90° bends, or equivalent.
- Minimum 2 ft (610 mm) straight length between bends.

VENTING ABOVE ROOF OF THE HOUSE USING A VERTICAL TERMINATION

Use Simpson Dura-Vent listed direct vent system caps for all vertical vent termination applications (through the roof).

Please follow the venting instructions as strictly as possible to obtain the best performance from the appliance.

ALLOWABLE TERMINATION LOCATIONS



	Canadian Installations (1)		US Installations (2)		Canadian Installations (1)	US Installations (2)
A= Clearance above grade, veranda, porch, deck, or balcony	12 inches (30 cm)	12 inches (30 cm)	12 inches (30 cm)	J= Clearance to non-mechanical air supply inlet to building or the combustion air inlet o any other appliance	12 inches (30 cm)	9 inches (23 cm)
B= Clearance to window or door that may be opened	12 inches (30 cm)	12 inches (30 cm)	12 inches (30 cm)	K= Clearance to a mechanical air supply inlet	6 feet (1.83 m)	3 feet (91 cm) above if within 10 feet (3 m) horizontally
C= Clearance to permanently closed window	*	*	*	L= Clearance above paved sidewalk or paved driveway located on public property	7 feet (2.13 m) +	*
D= Vertical clearance to ventilated soffit located above the terminal within a horizontal distance of 2 feet (61 cm) from the center line of the terminal	*	*	*	M= Clearance under veranda, porch, deck, or balcony	12 inches (30 cm) ++	*
E= Clearance to unventilated soffit	*	*	*	(1) In accordance with the current CSA B149.1, <i>National Gas and Propane Installation Code</i>		
F= Clearance to outside corner	*	*	*	(2) In accordance with the current ANSI Z223.1/NFPA 54, <i>National Fuel Gas Code</i>		
G= Clearance to inside corner	*	*	*	(+) A vent shall not terminate directly above a side walk or paved driveway that is located between two single family dwellings and serves both dwellings (++) Permitted only if veranda, porch, deck, or balcony is fully open on a minimum of two sides beneath the floor.		
H= Clearance to each side of center line extended above meter/regulator assembly	3 feet (91 cm) within a height 15 feet (4.5 m) above the meter/regulator assembly	*	*	(*) For clearances not specified in ANSI Z223.1/NFPA 54 or CSA B149.1, "Clearances shall be in accordance with local installation codes and the requirements of the gas supplier."		
L= Clearance to service regulator vent outlet	3 feet (91 cm)	*	*			

VENTING - RESTRICTOR PLACEMENT**RESTRICTOR PLACEMENT “FOR ROOFTOP VENTED APPLICATIONS ONLY”**

WARNING: These restrictors are only to be installed in the vent system if the vent exceeds 8’ in vertical height, *Restrictor Number 1 below is required and if the vent system exceeds 15’ vertically, *Restrictor Number 2 below is Required. Installing them **under any other circumstances may cause hazardous venting conditions and may result in personal injury, property damage or death.**

“NOT FOR USE IN SIDEWALL VENTED APPLICATIONS”

Restrictor Number #1
Vertical Venting - Above
Eight Feet (8’)



Restrictor Number #2
Vertical Venting - Above
Fifteen Feet (15’)



NOTE: Vent restrictors are designed to reduce vertical stack action for vent terminations which will reduce the velocity of incoming combustion air and not adversely affect the standing pilot or the efficiency of the appliance.

Simpson Dura-Vent
With Simpson Dura-Vent,
locate the restrictor in the exhaust
section fitting into the formed lip.



Simpson Dura-Vent

Archgard System
In the Archgard system, the
restrictors are placed on the
exhaust outlet on the appliance.



Archgard System

INSTALLATION INSTRUCTIONS Cont...

VENTING - Continued

For best venting performance, here are some general venting rules that we recommend:

1. Use only Archgard or Simpson Dura Vent direct vent systems and components.
2. Maintain a minimum of 1" (26 mm) clearance to combustibles from the outside surfaces of vertical vents and minimum of 1" (26 mm) sides and bottom, and 2" (51 mm) from top surfaces of horizontal vents.
3. Observe any local code restrictions, if any, regarding the installation of this type of gas appliance.
4. Observe the venting chart given in this manual.
5. Use vent spacers between the inside and outside vents at every 3 ft (915 mm) intervals (Archgard vent kits only).
6. Never slope horizontal vents downwards.
7. Maintain at least a rise of ¼" (7 mm) for every 1 ft (305 mm) of horizontal vent.
8. Terminate the vent with a suitable vent termination supplied by Archgard Part #999-DV-HTC or Simpson Dura Vent.
9. Support horizontal vents every 3 ft (915 mm) to prevent it from sagging.

APPROVED VENT COMPONENTS

PART #	DESCRIPTION
999-DV-TVK3	Flex Vent Kit with 36" vent length (includes 999-DV-HTC)
999-DV-TVK5	Flex Vent Kit with 60" vent length (includes 999-DV-HTC)
999-DV-HTC	Horizontal termination head only
999-DV-VSD	Vinyl siding deflector
999-DV-STC	24" Snorkel
999-DV-SDA	Adaptor, Flex to Simpson Dura-Vent
999-DV-SDA	Adaptor, Appliance to Simpson Dura-Vent
DV-GS	Simpson Dura-Vent venting system

VENTING CONNECTION

The intake pipe must be securely fastened to the appliance and to the terminal and all joints shall be secured using a minimum of 3 screws evenly spaced around the pipe.

Approximately 1" from the end of the 4" pipe outlet at the appliance and at the 4" terminal inlet apply a bead of Mil Pac ¼" wide. Slide the 4" pipe onto the appliance and secure with 3 screws evenly spaced to the outlet. Repeat the procedure at the terminal inlet.

Install a vent spacer between the outer and the inner liner to maintain clearances. Spacers should be installed at every change of direction. (See diagram)

Clearance to combustible material and fire-stops must be installed as required by the installation codes.

INSTALLATION INSTRUCTIONS Cont...

VENT KIT COMPONENTS (999-DV-TVK3)



Termination



Fire-stop



Sleeve



7" and 4" flex vent lengths (compressed)



Cement



Screws

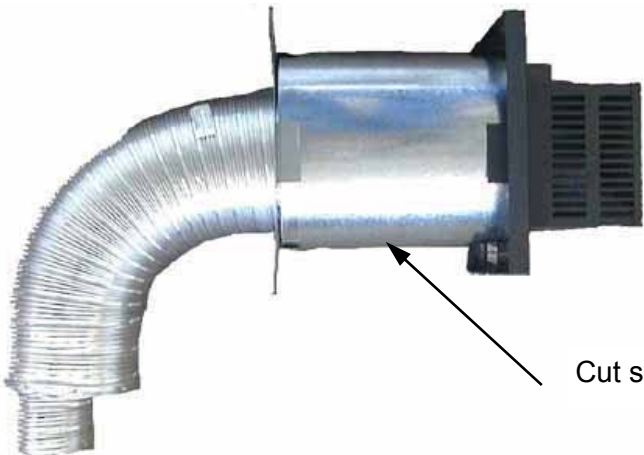


Spring spacers

VENT ASSEMBLY



4" exhaust vent with spring spacers



Vent system assembled

Cut sleeve to fit wall thickness

INSTALLATION INSTRUCTIONS Cont...**GLASS DOOR**

WARNING: Do not attempt to remove the glass door when the appliance is hot.

Removing the Glass Door

Remove the top louver by lifting off and open bottom louver.

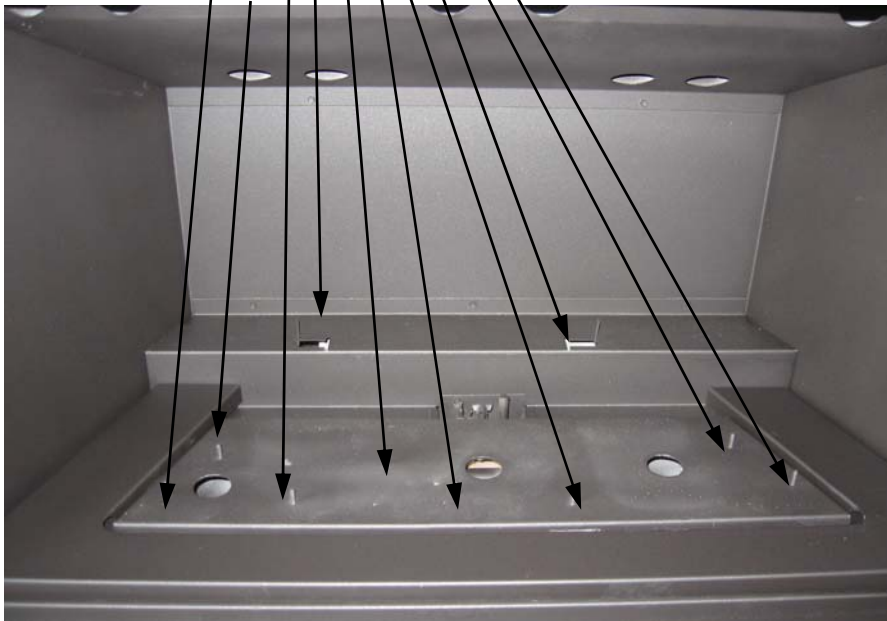
There are 3 buckle latches under the door frame. Lift the lever on the back of the latches to release them. Unhook the latches from the bottom of the door. Swing the bottom of the door towards you. Lift up on the whole door to unhook the top of door. Carefully remove the door put it away at a safe location where it cannot be scratched or damaged.

Replacing the Glass Door

The reverse procedure of Removing the Glass Door.

INSTALLATION INSTRUCTIONS Cont...**LOG PLACEMENT**

- Locator pins are provided to assist in log location
- **LOCATOR PINS**



- Locate the rear log on the locator pins in the rear of the firebox and then the front logs on the 3 pins located on the rear log.
- Carefully place the ember chunks on the ledge between the grate and the front of the burner.
- Do not allow the embers to obstruct the burner ports.



WARNING: Do not place logs in any other configuration than that shown. Under no circumstances are logs to be modified.

Locate the rear top log onto the locator pin on the top of the rear log as shown



Locate the right log onto the locator pins as shown as shown



Locate the back left log on the locator pins



Locate the left front log on the locator pins as shown



Locate the right log onto the locator pin on the bottom log and the locator pin on the burner pan



Locate the center log on the locator pin on the burner and rest it on the rear log as shown



Place the coals on the burner making sure not to block any burner ports or air passages. Do not place coals over the gap between the burner and the base.

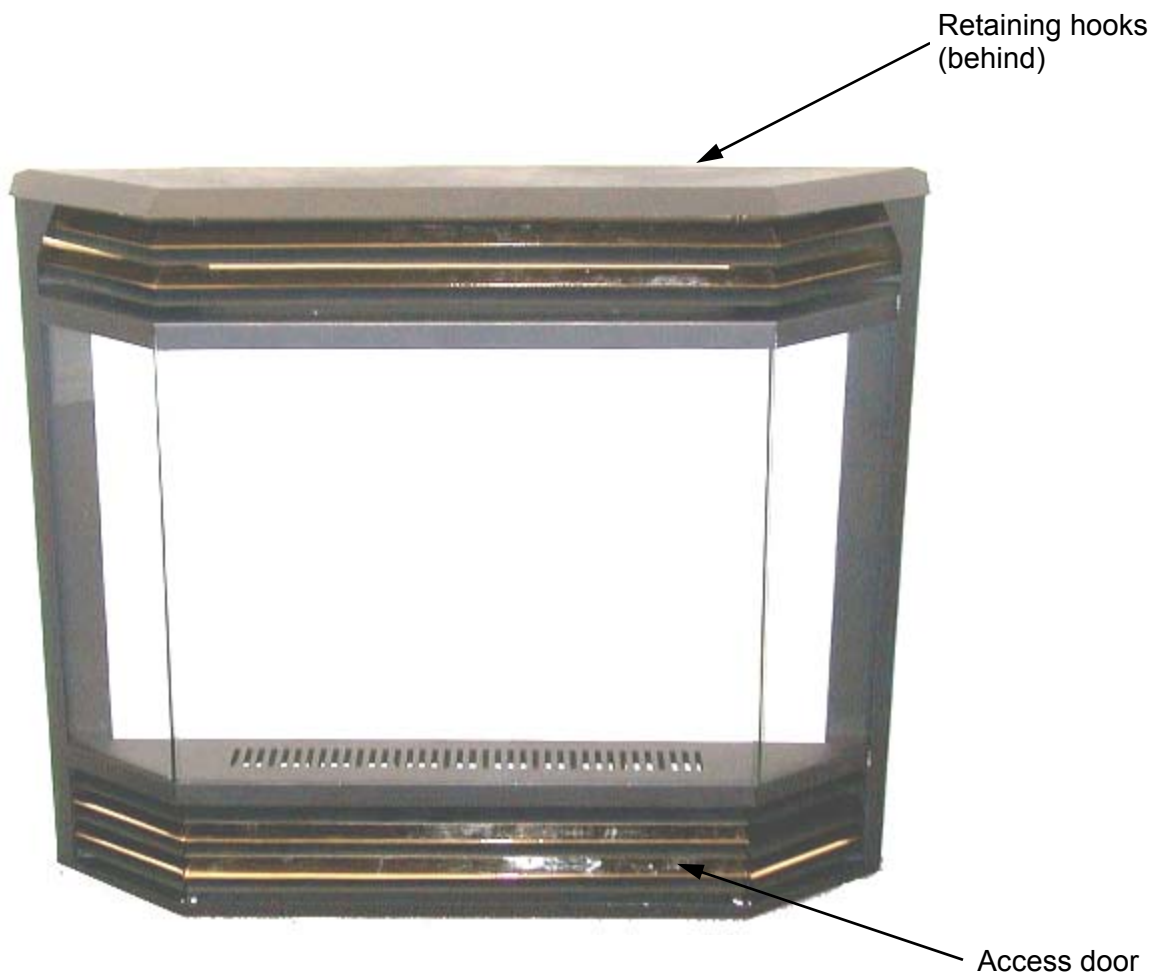


INSTALLATION INSTRUCTIONS Cont...**OPTIONAL BAY DOOR INSTALLATION**

WARNING: THE OPTIONAL BAY DOOR IS A DECORATIVE OPTION ONLY AND IS MANUFACTURED WITH TEMPERED GLASS. THIS UNIT MUST NOT BE OPERATED WITHOUT THE FLAT CERAMIC DOOR SECURED IN PLACE, BEHIND IT.

NOTE: Ensure that the fireplace is turned off and cool.

- 1 Remove the upper grilles by pulling the assembly forward.
- 2 Remove the lower grilles by removing the four hex head mounting screws.
- 3 Install The knob extensions on the valve.
- 4 Move the bay assembly over the front of the appliance, center in front of the flat door and hang over existing door.



OPERATION INSTRUCTIONS**FOR YOUR SAFETY, READ BEFORE LIGHTING****INITIAL OPERATION**

- Check that the appliance is properly vented and connected to the gas supply.
- Check that the logs and branches are properly placed.
- Check that all external parts, such as grills, door and faceplate are properly attached and fastened.
- Check that there are no finger prints left on gold surfaces as high temperature can bake these prints permanently.

NOTE : When operated for the first few times, the appliance will emit some odor and fumes. This is due to the heat from the appliance evaporating the oils and solvents used in fabricating the appliance. Close off the room to the rest of the house and open all windows. Keep the room well ventilated as smoke alarm may sound. Run the appliance for at least 4 hours at maximum setting with blower set to "OFF" to allow paint to cure.

WARNING : If you do not follow these instructions exactly, a fire or explosion may result, causing property damage, personal injury or loss of life. Do not operate the appliance with the glass front removed, cracked or broken. Replacement of the glass should be done by a licensed or qualified service person.

OPERATION INSTRUCTIONS Cont..

LIGHTING INSTRUCTIONS (copy of instruction plate found in control panel)

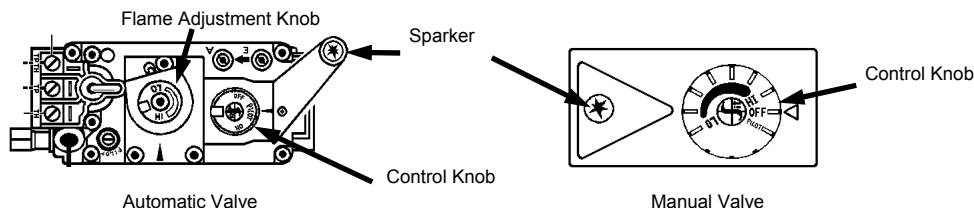
FOR YOUR SAFETY READ BEFORE LIGHTING

WARNING: If you do not follow these instructions exactly, a fire of explosion may result causing property damage, personal injury or loss of life.

- A. This appliance has a pilot which must be lighted by a spark ignitor. When lighting the pilot follow these instructions exactly.
- B. BEFORE LIGHTING smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.
- WHAT TO DO IF YOU SMELL GAS
- Do not try to light any appliance.
 - Do not touch any electrical switch; do not use any phone in your building.
 - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand don't try to repair it, call a qualified service technician. Force or attempted repair may result in a fire or explosion.
- D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

LIGHTING INSTRUCTIONS

1. STOP! Read the safety information above on this label.
2. Set the remote switch to "OFF". Set the thermostat to the lowest setting. (Only if your appliance is equipped with these devices.)
3. Turn off all electric power to the appliance.
4. Open lower louvers or access door.
3. Press slightly and turn the control knob clockwise ⤵ to the "OFF" position.
4. Wait 5 minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP! and follow instruction "B" above.
5. Find pilot. It is located between the logs near the center behind the burner.
6. Press slightly and turn control knob counterclockwise ⤴ to "PILOT". Depress knob and light pilot by repeatedly pressing the sparker. Once flame is established, hold knob depressed for approximately 30 seconds. Release knob. If pilot should go out, repeat steps 3 to 5.
 - If the knob does not pop up when released, stop and immediately call your service technician or gas supplier.
 - If the pilot will not stay lit after several tries, turn the gas control knob to "OFF" and call your service technician or gas supplier.
7. If the appliance has a manual valve, turn gas control knob counterclockwise ⤴ to the desired heat setting from "LO" to "HI". If the appliance has an automatic valve, turn gas control knob counterclockwise ⤴ to "ON" and set the flame adjustment knob to the desired heat setting from "LO" to "HI".
8. Set the remote switch to "ON". Set the thermostat to the desired setting. (Only if your appliance is equipped with these devices.)
9. Turn on all electric power to the appliance.
10. Close louver or access door.



Pilot

TO TURN OFF GAS TO APPLIANCE

1. Set the thermostat to the lowest setting and turn the remote switch to "OFF".
2. Turn off all electric power to the appliance if service is to be performed.
3. Open lower louvers or access door.
4. Press slightly and turn control knob clockwise ⤵ to "OFF". Do not force.
5. Close lower louvers or access door.

MAINTENANCE

CAUTION : Do not conduct maintenance on the appliance while it is operating or while it is still hot.

CLEANING THE APPLIANCE

The exterior painted surfaces, glass and gold trims may be cleaned with a soft, non-abrasive cloth and water or a suitable, mild, non-abrasive cleaner.

Regularly:

- Clean and remove any lint accumulations or debris from the grills and in any combustion and convection air passage ways.
- Keep the appliance area free from combustible materials, such as paper, wood, clothing, gasoline and flammable solids, liquids and vapors.
- Visually check the height and color of the burner and pilot flames.

Every 2 to 3 months:

- Remove the glass door and clean the inside of the glass with a soft, non-abrasive cloth and water or a suitable, mild, non-abrasive cleaner. **DO NOT CLEAN WHILE HOT.**
- Carefully remove the logs and gently brush off any loose carbon deposits. This job is best done outside the house, wearing a dust mask. The logs are very fragile, take care not to break them. **Do not wash logs with any liquid.** While logs are removed, also remove the coals and “embers” and check that all burner openings are not obstructed. It is recommended you use a vacuum cleaner to clean off any dust or lint.
- After cleaning, the logs, coals and embers must be replaced as per the instructions in this manual.

Once a year, have a qualified service technician:

- Completely inspect the appliance and the venting system. Vent connection can be checked by removing the vent baffle in the firebox. Remove the five ¼ hex head screws holding the baffle. Replace baffle after inspection.
- Clean and remove any lint accumulations or debris in the firebox, on the burners, on the pilot, at the primary air opening, on the convection air blower and in any combustion and convection air passage ways.
- Check the safety system of the gas valve and the appliance.

WARNING : All parts removed or disturbed including guards and grills must be properly replaced after maintenance. Service and repair must be conducted by a qualified service person. If these instructions are not followed, a fire or explosion may result, causing property damage, personal injury or loss of life.

TROUBLESHOOTING

Please check to make sure the instructions are followed exactly before attempting troubleshooting of the appliance.

WARNING: Troubleshooting and servicing of gas and electrical devices of the appliance should only be conducted by a qualified service technician.

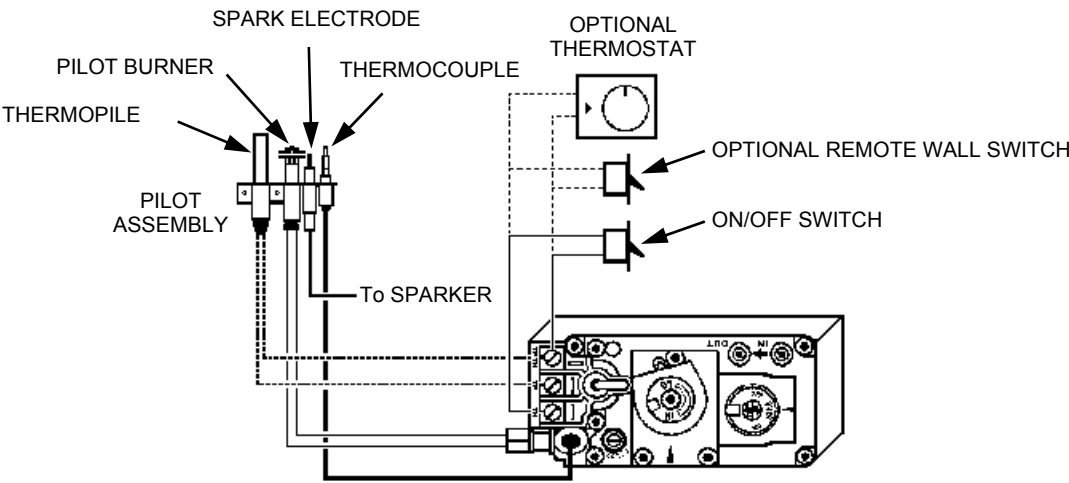
SYMPTOM	ACTION
Pilot will not light after pressing the sparker many times.	<ol style="list-style-type: none"> 1. When lighting the appliance for the first time after installation or after servicing, there is air in the gas line. It takes a while for all the air to purge out of the pilot before gas can reach the pilot and ignite. Remove the glass door and try lighting the pilot many times to purge the air. 2. Check to make sure the gas supply to the appliance is turned on and there is adequate gas supply pressure to the appliance. 3. Check for sparks between the spark electrode and the pilot head when the sparker is pressed. If there are no sparks, <ol style="list-style-type: none"> a. Check for broken or poor connection from the sparker to the electrode. b. Check for the spark shorting or arcing at other locations. c. Check for defective sparker. d. Check for defective spark electrode. 4. With the door removed, try lighting the pilot with a match. <ol style="list-style-type: none"> a. If air is blowing on the flame of the match, hold the control knob in at the 'PILOT' setting until all the air is purged out of the line. b. If there is no gas or air coming out of the pilot and there is gas pressure to the appliance, the pilot orifice may be blocked or the gas valve may be defective.
Pilot will not remain on after being lit.	<ol style="list-style-type: none"> 1. Press the control knob all the way in. 2. Hold the control knob in for a longer period of time. 3. If you are trying to re-light the pilot immediately after you have shut-off the pilot, you have to wait 5 minutes for the valve to reset. 4. Check to see if the pilot flame is large enough to reach and surround the thermocouple. If the flame is too small, check for correct gas supply pressure. If pressure is good, adjust the pilot flame size with the adjustment screw on the valve. If the flame cannot be adjusted, there might be some debris obstructing the pilot orifice, or a wrong size pilot orifice. 5. Check for poor connection of the thermocouple to the valve. 6. Check for proper millivolts of the thermocouple. The thermocouple should generate at least 30 mV or it is defective. 7. Check for defective gas valve.
The main burner does not turn on with the pilot lit.	<ol style="list-style-type: none"> 1. Check to make sure the control knob is turned to the 'ON' position. 2. Allow enough time for the pilot to heat up the thermopile to generate sufficient voltage to activate the valve.

TROUBLESHOOTING - Continued

SYMPTOM	ACTION
The main burner does not turn on with the pilot lit.	<ol style="list-style-type: none"> 3. Check to make sure the thermostat is set high enough to turn on the appliance. 4. Check that the remote switch or the thermostat is turned on. 5. Check for weak pilot flame. If flame is weak, check gas supply, check pilot flame adjustment and check for blockage of pilot orifice. 6. Check all connections to the valve for tight electrical contact. 7. Check spill switch for continuity. 8. Check for 400-500 mV from the thermopile with the burner off and 200-250 mV with the burner on. If the voltages are lower, the thermopile is defective. 9. Check for defective gas valve.
The main burner shuts off when the appliance is warm.	<ol style="list-style-type: none"> 1. This may be the normal operation of a wall thermostat installed to appliances. 2. Check for good pilot flames on the thermopile (see page 22). 3. Check for good voltage from the thermopile. 4. Check for proper functioning of venting system. 5. Check wire connections. Expansion from heat affects a loose connection
Sooty deposits on the glass door.	<ol style="list-style-type: none"> 1. If the flame is yellow and lazy, check for lint etc. around primary air shutter. Increase primary air by opening the primary air shutter if necessary. 2. Check for proper placement of the logs and branches. Ensure logs and burner are clean. See that section in the instruction manual. 3. Check for obstruction of the burner ports by the embers. See that section in the instruction manual. 4. Check for proper venting and blockage of the vent termination. 5. Check manifold pressure and clock input rating for over-firing.
Sharp blue flames with flames lifting off the burner at the ends.	<ol style="list-style-type: none"> 1. Too much primary air. Reduce primary air by closing the primary air shutter. During cold temperatures, some flame lifting may occur during start-up.
Convection blower does not turn on.	<ol style="list-style-type: none"> 1. The convection fan is thermostatically controlled. It will only turn on when the appliance is warmed-up. This may take up to 15 minutes with the appliance on high. 2. Check for 120 VAC electrical supply to the appliance. (Is the cord plugged in?) 3. Check for proper mounting of the thermal snap disc. 4. Check electrical connections. 5. Check for defective thermal snap disc. 6. Check for defective convection blower speed controller. 7. Check for defective convection blower.

WIRING DIAGRAMS

VALVE CONNECTIONS



SERVICING

SERVICING UNDER WARRANTY

Before servicing, read the terms and conditions of the Archgard warranty at the back of the manual. Contact the Archgard authorized dealer where you purchased the appliance from and provide them with details of the problem and the installation information that the installer has filled in at the back of the manual.

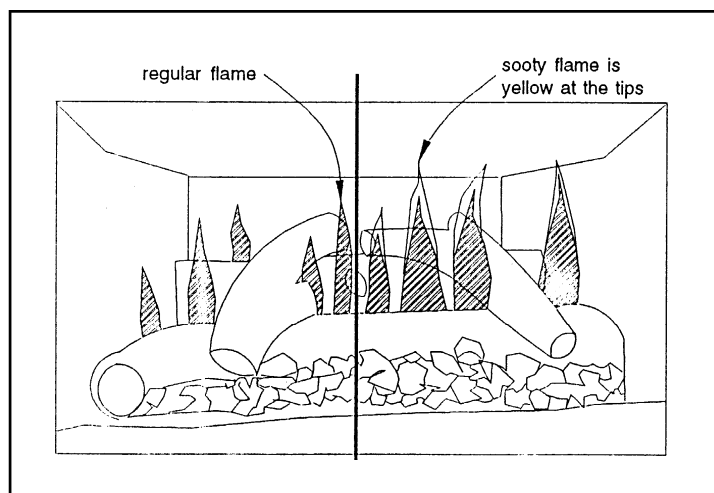
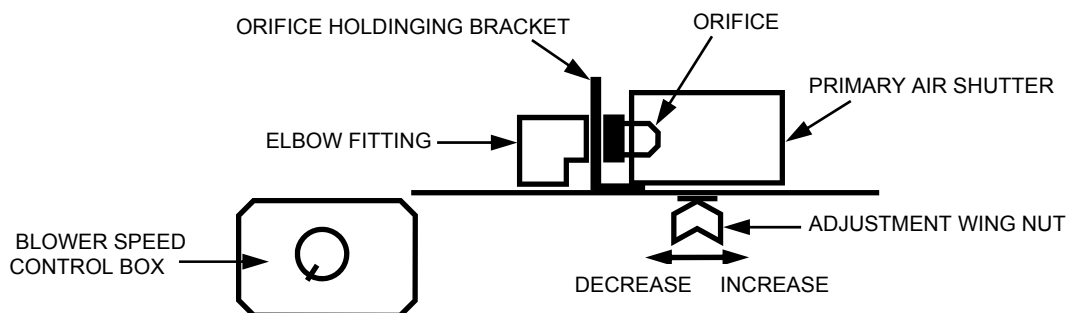
WARNING: Servicing of this appliance **must be conducted by a qualified service technician**. Improper servicing, adjustment or alteration of this appliance may cause property damage, personal injury or loss of life. All servicing should be conducted with the appliance cold. All replacement parts must be authorized by Archgard for suitability.

ADJUSTING PRIMARY AIR

Note: the Shutter is set at the factory and normally only requires setting at higher altitudes.

- Open the lower grilles.
- Unscrew the 2 screws holding the blower speed control panel and remove the panel.
- The primary air adjustment wing nut is located behind and to the left of the control valve.
- Loosen the wing nut and slide the primary air shutter to the right to increase primary air and to left to reduce primary air.
- Tighten the wing nut after adjustment.

Caution: Wear gloves when adjusting the primary air with the appliance hot.



FLAMES...

The left side shows correct adjustment. The right side shows yellow sooty flames requiring increase in shutter opening or cleaning of shutter area due to lint buildup.

SERVICING

CHANGING MAIN BURNER ORIFICE

- Remove the glass door, log branches and the front log.
- Unscrew the 2 screws holding the left burner shields between the burner tubes and remove the shield.
- Remove the adjustment wing nut and slide the air shutter away from the orifice cap.
- Use a ½" wrench to remove the orifice cap.
- Change the orifice cap. Use a small quantity of gas thread seal compound. Do not over tighten.
- Replace the adjustment wing nut and properly set the primary air shutter according to the specifications.
- Replace the burner shield, front log, branches and the glass door.

CHECKING SUPPLY AND MANIFOLD GAS PRESSURE

- Open the lower grills.
- The pressure test taps are located on the valve.

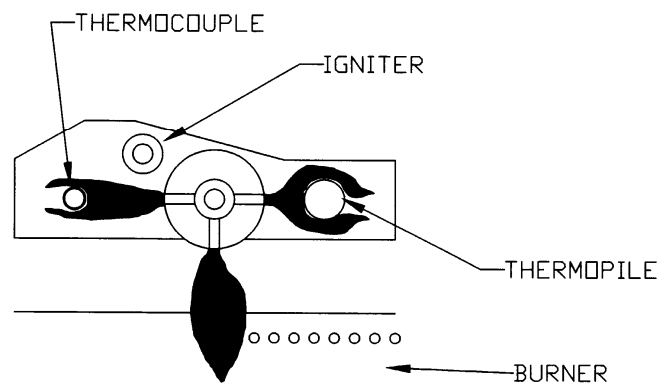
Automatic valve: The taps are located in the front. The supply pressure is marked '**IN**' and the manifold pressure is marked '**OUT**'. There is also an arrow marking the direction of gas flow.

Manual valve: The taps are located on the left side of the valve. The connection closest to the back, marked with '**IN**' is the supply pressure and the manifold pressure marked with '**OUT**' is closest to the front.

- Loosen the set screw inside the tap with a ⅛" wide flat screw driver.
- Connect a ¼" rubber tube to the tap and to the manometer.
- Be sure to tighten the set screw inside the tap after you are finish taking pressure readings.
- Check for leaks.

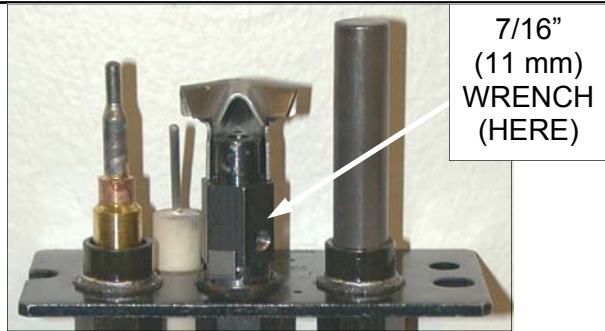
CHECKING AND ADJUSTING PILOT

The pilot flame should have the characteristic as shown in the illustration below. The flame should not have yellow tips but should engulf the thermocouple and thermopile. It can be adjusted by turning the screw marked "pilot" on the control valve.



SERVICING Cont...**CONVERTIBLE PILOT ORIFICE**

The pilot assembly is convertible to the type of gas being used. Simply unscrew the body by using a 7/16" (11 mm) wrench and turn ¼ open - then push the small metal tab across to the other side of the body and retighten. **Call your local Authorized Archgard Dealer to purchase the correct fuel conversion kit for your gas appliance.**

**IF YOUR GLASS BREAKS**

In the event your glass cracks or breaks, it must be replaced by the exact same size and material. It is made from high temperature ceramic material. See replacement parts list and contact your nearest Archgard dealer.

- Remove door and carefully remove all traces of glass and gasket material.
- Replacement requires Ceramic glass part #307-0042, gasket part #314-0007 and sealer part #319-0005.
- Install new glass with new gasketing in place. The “thicker” side of the gasket fits against the fireplace opening.
- Hold glass in place by using the sealer between gasket and door. Use sparingly so that no excess will be visible. **DO NOT PUT ANY SEALER BETWEEN GLASS AND UNIT OPENING.**
- Replace the door carefully making sure all three clamps are closed.

REPLACING CONVECTION BLOWER

- Remove the gas component assembly, see above.
- Mark all wires to be removed for proper reassembly. **CAUTION:** Wiring errors cause improper and dangerous operation.
- The convection blower is located at the bottom of the appliance at the back. Remove the three screws holding the blower.
- Lift the blower out and disconnect the wires from the blower.

REPLACEMENT PARTS FOR THE NORTHFIRE 42

ITEM #	DESCRIPTION	QTY	UNIT
200-1912	OWNER'S MANUAL NORTHFIRE 42-DVT40N	1	EA
300-0031	MAGNET 0.25 X 0.875 X 1.0 (7 Lb PULL)	2	EA
300-0034	LATCH, DOOR 1 11/16" X 1 3/16"	3	EA
301-0068	ORIFICE CAP #49 (PROPANE GAS)	1	EA
301-0068	ORIFICE CAP #31 (NATURAL GAS)	1	EA
305-0013	SPEED CONTROL (KBMS-13BV) c/w KNOB	1	EA
RF-305-0024	ELECTRIC FAN - CROSSFLOW (120VAC)	1	EA
305-0021	FAN THERMODISC (110°F)	1	EA
307-0042	REPLACEMENT FLAT GLASS (CERAMIC GLASS 5 mm CLR)	1	EA
308-0005	PIEZO IGNITORC/W NUT (66270-003)	1	EA
308-0013	"S I T" GAS CONTROL VALVE HIGH / LOW NATURAL GAS (CONVERTIBLE WITH L. P. CONVERSION KIT).	1	EA
308-0093	"P S E" PILOT ASSEMBLY (CONVERTIBLE)	1	EA
310-0020	COALS, MEDIUM GRADE 40z BAG	1	BG
310-6420-1	CERAMIC FIBER LOG REAR	1	EA
310-6420-2	CERAMIC FIBER LOG LEFT TOP	1	EA
310-6420-3	CERAMIC FIBER LOG RIGHT	1	EA
310-6420-4	CERAMIC FIBER LOG LEFT	1	EA
310-6420-5	CERAMIC FIBER LOG LEFT FRONT	1	EA
310-6420-6	CERAMIC FIBER LOG RIGHT FRONT TOP	1	EA
310-6420-7	CERAMIC FIBER LOG CENTER TOP	1	EA
314-0101	GASKET (RELIEF PLATE) 3 1/2 X 15	2	EA
314-0115	GASKET (VENTURI / BURNER)	1	EA
42-CKLP	CONVERSION KIT-NATURAL GAS TO PROPANE	1	EA

Parts can be ordered through your local dealer or distributor by giving ITEM # and DESCRIPTION.

ARCHGARD LIMITED WARRANTY

This Limited Warranty is made by ARCHGARD INDUSTRIES LTD., hereinafter referred to as "Archgard". Archgard warrants to the original purchaser of an Archgard gas burning fireplace (s) that the product will be free of defects in materials and workmanship under normal use and service, for a "lifetime".

INCLUSIONS: "LIFETIME LIMITED WARRANTY"

- ❖ All heat exchangers, combustion chamber, burner tubes and pans.
- ❖ Ceramic Fiber Logs and Ceramic Brick Panels against splitting or cracking.
- ❖ Ceramic Glass against thermal breakage.
- ❖ All 24 K gold trims and accessories against tarnishing.
- ❖ All trim accessories against tarnishing and paint defects.
- ❖ NOTE: Discoloration and some minor movement of certain parts are normal and are not a defect and therefore, not covered under warranty.

The above will be covered "parts & labor" to the original purchaser for FIVE years and "parts" only thereafter from original date of purchase.

INCLUSIONS: "FIVE YEAR LIMITED WARRANTY"

- ❖ Five year limited warranty on the "FiberFlame Technology Burner System." Warranty will cover any defective burner and ceramic ember bed if defect is deemed as original by the manufacturer.

The above will be covered "parts & labor" to the original purchaser for TWO years and "parts" only thereafter from original date of purchase.

INCLUSIONS: "ONE YEAR LIMITED WARRANTY"

- ❖ Blowers, fans and fan motors, wiring, rheostats and thermostats.
- ❖ Rocker switches, spill switches and wiring to them.
- ❖ Gas control valves, pilot assemblies including thermopiles, thermocouples, electrodes, and igniters.

The above will be covered "parts & labor" to the original purchaser for ONE year from date of purchase.

EXCLUSIONS:

- ❖ Archgard does not offer wall mounted thermostats, programmable thermostats (wiring for hook-up of said product), handheld remote controls, fireplace mantel (s), trims or tiles.
- ❖ Ember Material.
- ❖ Tempered Glass is warranty for ONE year to the original purchaser from date of purchase.
- ❖ Travel time or mileage to original purchasers residence. Archgard suggests that you pre-arrange travel expenses with your Authorized Archgard Dealer.

WHAT TO DO IN THE EVENT OF A PROBLEM:

- ❖ Thoroughly read your manual.
- ❖ If you cannot solve the problem, contact your Archgard Dealer or representative.
- ❖ When calling for help please have the following information:

Model of your Fireplace	Serial Number	Place of Purchase
Date of Purchase	Problem Description	

- ❖ NOTE: Warranty may be void if work is carried out by an unqualified person (s). Only original Archgard parts may be used. Please consult your Archgard dealer or representative if in doubt about a replacement part (s).

OBTAINING WARRANTY SERVICE:

To obtain warranty service, the original purchaser shall return the defective part (s) to the original authorized Archgard selling dealer transportation prepaid, along with the serial number of the appliance and proof of purchase. Any defective part, in our judgment, will be repaired or replaced at Archgard's discretion. The dealer must obtain approval from Archgard before any repairs are made.

WARRANTY LIMITATION:

THIS LIMITED WARRANTY IS MADE IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED AS TO QUALITY, MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE.

The appliance is only warranted for the use as intended by the installation and operating instruction and local building codes. The warranty will not cover damage due to accident, misuse, abuse, alteration, improper installation or "Acts Of God". This limited warranty is void unless the appliance is installed by a qualified installer, in accordance with the instructions furnished with the appliance. Some Provinces or States do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to the original purchaser. Any damage resulting from defects in this product, is limited to the replacement of the defective part (s) and does not include incidental and consequential exposures sustained in connection with the product. This includes facing (s), mantle (s), cabinet (s), tile (s) or any other finishes resulting from removal of any gas appliance. This warranty is limited to residential use only and gives the consumer specific rights. These rights may vary from State to State or Province to Province.

POSTAGE

WARRANTY REGISTRATION

**ARCHGARD INDUSTRIES LTD.
7116 BEATTY DRIVE
MISSION, B.C. CANADA
V2V 6B4**

FOLD DOWN AT LINE

FOLD DOWN AT LINE & TAPE CLOSED

Model # : **42-DVT40N** Serial #: _____ Date Installed: _____ / _____ / _____
mm dd yyyy

Name: _____ Address: _____

City: _____ State/Prov: _____ ZIP: _____ Phone: (_____) _____

Dealer's Name & Address: _____

City: _____ State/Prov: _____ ZIP: _____ Phone: (_____) _____

Installer's Name & Address: _____

City: _____ State/Prov: _____ ZIP: _____ Phone: (_____) _____

Why did you choose this product? _____

Thank you for purchasing our product and filling out this warranty card.

ARCHGARD INDUSTRIES LTD.

7116 BEATTY DRIVE
MISSION, B.C. V2V 6B4
CANADA

WEBSITE: WWW.ARCHGARD.COM